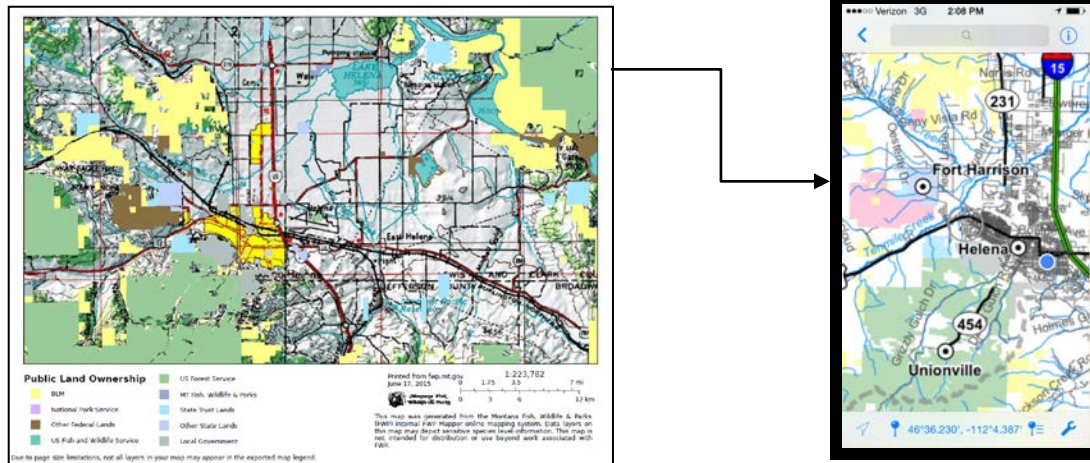


How to create and use a georeferenced PDF map on a mobile device using FWP mapping applications



Overview

This document outlines how to:

1. Create a georeferenced PDF map using Montana Fish, Wildlife & Parks' (FWP) web mapping applications.
2. Load a georeferenced PDF map to a mobile device to view your location on the map.

Audience

Hunters, anglers, recreationists.

Purpose

Improve maps for the field by enabling users to locate themselves relative to base map reference information and access opportunities, such as Fishing Access Sites, Wildlife Management Areas, State Parks, Block Management Areas, the Upland Game Bird Projects, and Unlocking State Lands Projects.

Prerequisites

Creating maps requires an internet connection and email access. FWP's web mapping applications work best with the Mozilla Firefox web browser. Additionally, using Georeferenced PDFs on a mobile device requires a 'geospatial PDF viewer' application be installed on the device.

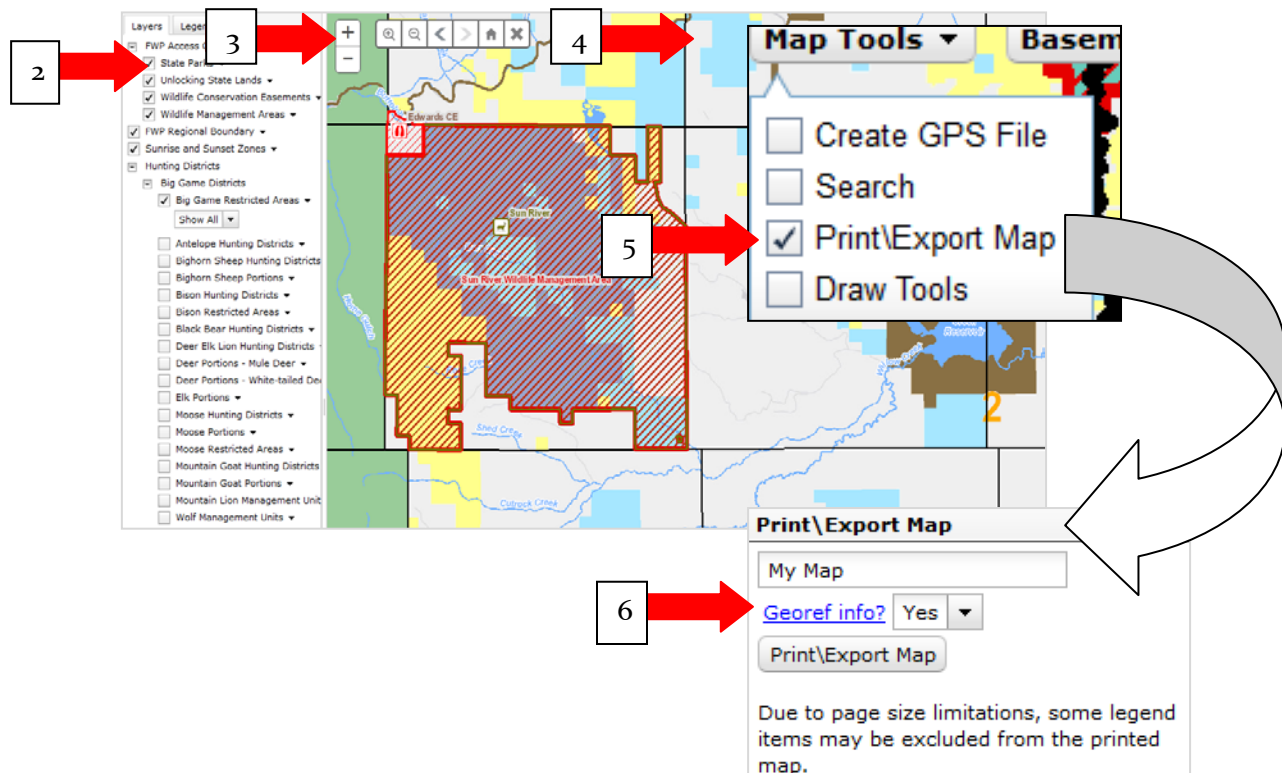
Steps to Create a Georeferenced PDF Map:

The following steps illustrate using FWP's Hunt Planner with the Mozilla Firefox web browser.

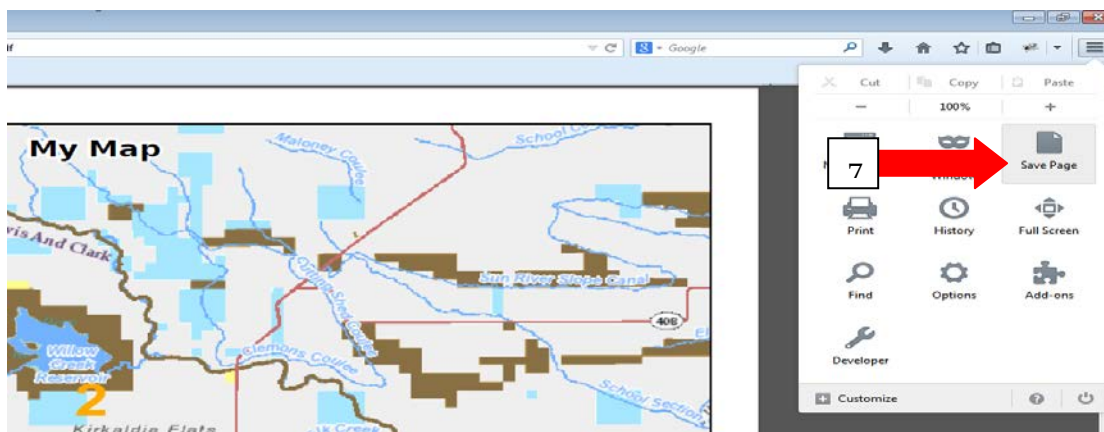
1. Open an FWP interactive mapping application (e.g. Hunt Planner):
<http://fwp.mt.gov/gis/maps/huntPlanner/>
2. Turn on the desired layers.
3. Zoom in or out to the desired area. Tip: A map < 10 miles across works best.

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- Click the Map Tools dropdown.
- Activate the Print/Export tool.
- In the Print/Export Map dialog window, enter a Title (optional), select 'Yes' for the 'Georef info?' question, and click Print\Export Map.



- The PDF will appear in your web browser. Save the PDF to an accessible location by opening the Firefox Menu and choosing Save Page.



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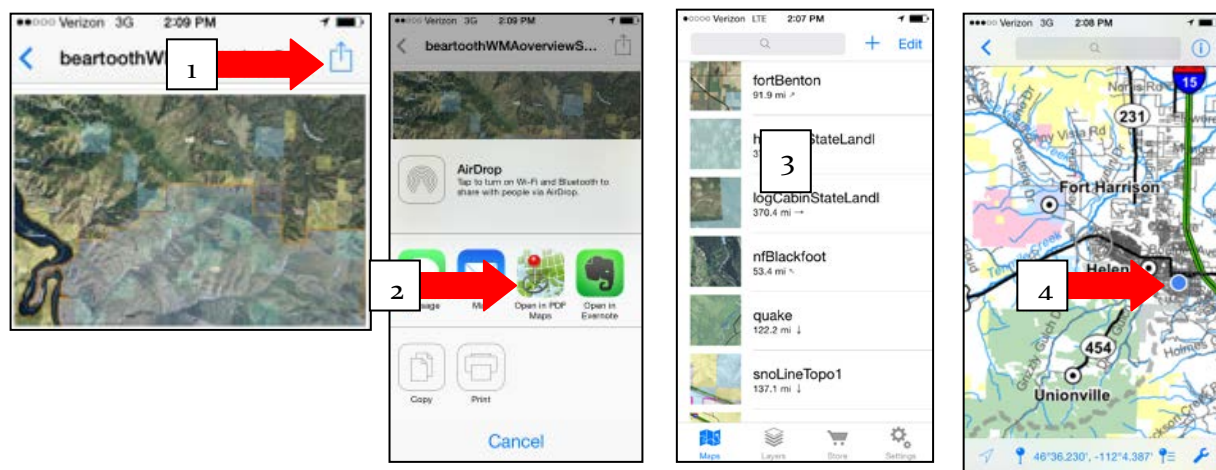
8. Navigate to the PDF file location specified in step 7. Open the map to verify the map displays the expected content and extent. If not, make adjustments and save a new map.
9. Print the map for use in the field or send it to a mobile device. Mobile device users can email the PDF to their mobile device as an email attachment.

Steps to View and Use Georeferenced PDF Maps on a Mobile Device:

The following example illustrates the steps using the Avenza PDF App on an iOS device.*

**FWP does not endorse any third party applications or devices.*

1. On the mobile device, open the email and PDF map attachment. Note: iOS users can send the map to an application using the AirDrop function.
2. Select a 3rd party app (e.g. Avenza PDF Maps) by selecting that app in the corresponding pop-up window.
3. View the map and your location in the app. In Avenza PDF maps, a list of available maps is shown along with the current distance (in miles) to the nearest edge of that map.
4. On a selected map, the current location is shown as a blue dot. Best of all, users DO NOT NEED CELL COVERAGE to view their location on the map!



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Frequently Asked Questions

Q: Can I make a georeferenced PDF map while in the field?

A: *Possibly, but due to limited cell phone and internet coverage in remote locations, it is recommended that maps are created and loaded to a device before heading out.*

Q: Do I need cell coverage to view a georeferenced PDF map?

A: *No, the device's GPS or location service will track its location within the georeferenced PDF map.*

Q: Are land ownership and other access data accurate on maps created with FWP's web mapping applications?

A: *Not necessarily. Property boundaries and/or ownership constantly change. It is every recreationist's responsibility to know the land ownership of the area and any land use restrictions or regulations that may apply. By using the maps, users should also acknowledge that positional accuracy of features in the maps have a margin of error that is inherent because of a mobile device's ability to locate its relative position.*

Q: What mobile options exist for viewing georeferenced PDF maps?

A: *Many options currently exist for iOS and Android and more are likely to appear. To find and download a georeferenced PDF viewer, go to an app store of your choice and search for "georeferenced PDF viewers" or "geospatial PDF viewers". Several free options are available. Popular options at the time of this writing are: [Avenza Systems' PDF Maps](#), [Adobe Acrobat](#), and [TerraGo Mobile](#). *Note: FWP does not endorse any third party applications or devices.*

Q: Where can I get help creating and using georeferenced PDF maps?

A: *The third party applications referenced above provide instructions for creating, uploading and viewing georeferenced PDF maps. While FWP staff can provide assistance with FWP's mapping applications, we do not provide assistance for mobile devices or third party applications. FWP does not endorse any third party mobile applications or devices.*

Resources

FWP's Maps and GIS Resources - <http://fwp.mt.gov/doingBusiness/reference/maps/>